

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

Francis DARMANN et al.

[Group Art Unit: Not Assigned]

Continuation of Serial No.:
PCT/AU99/00179

[Examiner: Not Assigned]

Filed: September 13, 2000

SUPERCONDUCTING TAPES

PRELIMINARY AMENDMENTHonorable Assistant Commissioner of Patents and Trademarks,
Washington, D.C. 20231

Sir:

Preliminary to the examination of the above-identified application, please enter
the following amendments and remarks.

IN THE SPECIFICATION

Kindly amend the specification as follows:

Page 1, between lines 1 and 2, insert

--CROSS REFERENCE TO RELATED APPLICATIONS

This is a continuation application of application Serial No. PCT/AU99/00179,
filed March 18, 1999, the entire contents of which are hereby incorporated by reference
for all purposes.--

Page 2, line 18, after other, please insert--the composite superconducting tape

including at least one tape bridging the stacks--;

between lines 18 and 19, please insert the following new paragraphs

--According to another aspect of the invention, there is provided a composite superconducting tape constructed from a plurality of superconducting tapes, each having two opposite major faces and two opposite edges extending between the major faces, the composite superconducting tape including a first stack having a plurality of the superconducting tapes wherein each tape in the first stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack, a second stack having a plurality of the superconducting tapes wherein each tape in the second stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack, wherein at least some of the superconducting tapes have widths not greater than half the width of the composite superconducting tape, and a bridging tape spanning between the two stacks for maintaining the first and second stacks in a substantially parallel edge-to-edge configuration.--

IN THE CLAIMS

Please note that there was no claim 6 presented in the original application.

Therefore, claim 6 is not pending.

Please cancel claim 10 without prejudice thereto or disclaimer to subject matter

therein.

Please amend the claims as follows:

1. (Amended) A composite superconducting tape comprising a multiplicity of constituent superconducting tapes stacked parallel to one another with major faces in contact [and characterized in that], wherein at least some of the constituent tapes have widths not greater than half the width of the composite superconductor and are laid edge-to-edge with each other, the composite superconducting tape including at least one tape bridging the stacks.

4. (Amended) A composite superconducting tape as claimed in [any one of claims 1-3 comprising] claim 1, wherein the at least one [full-width] bridging tape is the full width of the composite superconductor and is produced from a silver or silver alloy material [bridging from tape to tape].

7. (Amended) A composite superconducting tape as claimed in claim [6 in which] 5, wherein the two metal tapes are of unequal strength.

Please add the following claims. ✓

--11. A composite superconducting tape constructed from a plurality of

superconducting tapes each having two opposite major faces and two opposite edges extending between the major faces, the composite superconducting tape including:

a first stack having a plurality of the superconducting tapes wherein each tape in the first stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack;

a second stack having a plurality of superconducting tapes wherein each tape in the second stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack, wherein at least some of the superconducting tapes have widths not greater than half the width of the composite superconducting tape; and

a bridging tape spanning between the two stacks for maintaining those stacks in a substantially parallel edge-to-edge configuration.

12. A composite superconducting tape as claimed in claim 11, wherein all the constituent superconducting tapes have a width that is substantially a simple fraction of the width of the composite tape so that they form two or more substacks with aligned zones between them which contain no superconducting material.

13. A composite superconducting tape as claimed in claim 12, wherein said simple fraction is a half, so that there are two sub-stacks.

14. A composite superconducting tape as claimed in claim 11, wherein the at least one bridging tape is the full width of the composite superconductor and is produced from a silver or silver alloy material.

15. A composite superconducting tape as claimed in claim 14, wherein two full-width metal tapes are present, one at each end of the stack.

16. A composite superconducting tape as claimed in claim 15, wherein the two metal tapes are of unequal strength.

17. A composite superconducting tape as claimed in claim 11, wherein the superconducting tape is diffusion-bonded and all its elongate components extend longitudinally.

18. A composite superconducting tape as claimed in claim 11, in which the constituent tapes are all powder-in-tube superconducting tapes.

19. A method for producing a composite superconducting tape constructed from a plurality of superconducting tapes each having two opposite major faces and two opposite edges extending between the major faces, the method comprising:

providing a first stack having a plurality of the superconducting tapes wherein

each tape in the first stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack;

providing a second stack having a plurality of superconducting tapes wherein each tape in the second stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack; and

providing a bridging tape for maintaining the two stacks in a substantially parallel edge-to-edge configuration wherein at least some of the superconducting tapes have widths not greater than half the width of a composite superconducting tape.

20. A method according to claim 19, further comprising rolling the composite superconducting tape.--

REMARKS

By this Preliminary Amendment, the specification has been revised to identify the parent application, the claims have been amended to eliminate multiple dependence and clarify the claims, the specification has been amended to correspond to these amended claims, claim 10 has been canceled, and claims 11-20 have been added. Therefore, claims 1-5, 7-9 and 11-20 are pending. Claims 1, 11 and 19 are independent. Entry of this Preliminary Amendment and favorable action on the merits are respectfully requested.

In the event that there are any outstanding matters remaining in the present

application, the Examiner is invited to contact Susan S. Morse (Reg. No. 35,292) at (703) 715-0870 in the Washington, D.C. area, to discuss these matters.

Respectfully submitted,

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